ANNUAL WATER QUALITY REPORT

Reporting Year 2022

Presented By

THE CITY OF SAN FERNANDO

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: CA1910143

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

Important Health Information

Nitrate in drinking water at levels above 10 parts per million (ppm) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

> "Thousands have lived without love, not one without water."
>
> —W.H. Auden

Community Participation

You are invited to participate in our city council meetings and voice your concerns about your drinking water. The city council meets the first and third Monday of each month at 6:00 p.m. at City Hall, 117 Macneil Street. You may also visit http://ci.san-fernando.ca.us/city-council/ for meeting schedules.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.

Where Does My Water Come From?

The City of San Fernando, incorporated in 1911, provides water service to an area of approximately 2.42 square miles with an approximate population of 23,946 residents. Annually, the city serves approximately one billion gallons of water to our customers. San Fernando residents are fortunate to have three sources of water: local groundwater wells that draw water from the Sylmar basin; imported treated water from the Metropolitan Water District (MWD) emergency connection, which delivers surface water from the Weymouth plant; and a connection from the City of Los Angeles that is used only in extreme emergencies.

The City of San Fernando began the year using its water supply from local groundwater. In April the city began using 100 percent treated surface water from MWD.

Questions?

If you should have any questions relating to your drinking water, or for additional information regarding this report, you may contact Water Superintendent Alejandro Mendez at (818) 898-1294.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

How Is My Water Treated and Purified?

There are three treatment processes consisting of some basic steps. First, groundwater is drawn from the Sylmar basin, then chlorine is injected in a sodium hypochlorite solution of 0.8 percent for disinfection (as a precaution against any bacteria that may be present). The city's wells utilize an on-site chlorine generation (OSG) system in which the sodium hypochlorite solution is used as a disinfectant agent. Through an electrolytic process, the OSG operates automatically, requiring only salt, water (softened), and electricity to produce the sodium hypochlorite solution. We carefully monitor the amount of chlorine injected at each well site on a daily basis. Water is then pumped to reservoirs and the distribution system, where it flows by gravity into your home or business. Chlorine residuals are monitored from the distribution system daily in order to ensure a reliable supply of drinking water.

Another treatment uses a proprietary ion exchange process for removal of nitrate anions from the water. A self-contained unit is installed in-line between a well discharge and the distribution system. Nitrate removal is accomplished using ion exchange resin regenerated with sodium chloride (brine) solution. Sodium chloride is the only treatment chemical used in this system. Nitrate monitoring is conducted on a daily basis.

The City of San Fernando, as a member agency of MWD, treats its water through the Weymouth surface water plant, first disinfecting it with ozone treatment, followed by coagulation, flocculation, sedimentation, filtration, and finally additional chloramine disinfection prior to delivery. Chloramine is the primary disinfection method used by MWD in its distribution system. San Fernando changes over to chloramine disinfection when importing finished water from MWD.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

				San Fernando		Metropolitan Water District of Southern California			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2022	1	0.6	NA	NA	0.156	0.058–0.156	No	Erosion of natural deposits; residue from some surface water treatment processes
Barium (ppm)	2022	1	2	NA	NA	0.107	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chloramines (ppm)	2022	[4.0 (as Cl2)]	[4 (as Cl2)]	NA	NA	2.5	0.4–2.9	No	Drinking water disinfectant added for treatment
Chromium, Total (ppb)	2021	50	(100)	3.1	2.9–3.4	NA	NA	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Combined Radium (pCi/L)	2020	5	(0)	1.2	ND–3.5	NA	NA	No	Erosion of natural deposits
Control of DBP Precursors [TOC] (ppm)	2022	TT	NA	NA	NA	2.4	1.7–2.6	No	Various natural and human-made sources
Fluoride (ppm)	2022	2.0	1	NA	NA	0.7	0.4–0.8	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Free Chlorine Residual (ppm)	2022	NA	NA	1.50	0.5–2.5	NA	NA	No	Drinking water disinfectant added for treatment
Gross Beta Particle Activity (pCi/L)	2022	50[1]	(0)	NA	NA	6	4–7	No	Decay of natural and human-made deposits
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2022	60	NA	1.7	ND–4.9	NA	NA	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2022	NS[2]	0.02	NA	NA	9.6	ND–15	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrogen] (ppm)	2022	10	10	8.5	6.1–9.5	NA	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 226 (pCi/L)	2020	5	0.05	1.2	ND–3.5	NA	NA	No	Erosion of natural deposits
Tetrachloroethylene [PCE] (ppb)	2022	5	0.06	ND	ND–0.74	NA	NA	No	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2022	80	NA	NA	NA	34	11–42	No	By-product of drinking water disinfection
Turbidity (NTU)	2022	TT	NA	0.32	0.02-0.9	0.04	ND–0.04	No	Soil runoff
Uranium (pCi/L)	2022	20	0.43	NA	NA	2	1–3	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	San Fernando: AMOUNT DETECTED (90TH %ILE)	San Fernando: SITES ABOVE AL/TOTAL SITES	Metropolitan Water District of Southern California: AMOUNT DETECTED (90TH %ILE)	Metropolitan Water District of Southern California: SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2020	1.3	0.3	0.25	0/31	NA	NA	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2020	15	0.2	1.5	0/31	NA	NA	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	San Fernando: AMOUNT DETECTED	San Fernando: RANGE LOW-HIGH	Metropolitan Water District of Southern California: AMOUNT DETECTED	Metropolitan Water District of Southern California: RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2022	200	NS	NA	NA	156	58–240	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2022	500	NS	NA	NA	102	98–105	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2022	15	NS	NA	NA	1	NA	No	Naturally occurring organic materials
Corrosivity (AI Aggressiveness index)	2022	Noncorrosive	NS	NA	NA	12.5	NA	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen affected by temperature and other factors
Specific Conductance (µS/cm)	2022	1,600	NS	NA	NA	992	964–1,020	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2022	500	NS	NA	NA	222	212–232	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2022	1,000	NS	NA	NA	638	632–643	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2022	5	NS	0.32	ND–3.8	NA	NA	No	Soil runoff

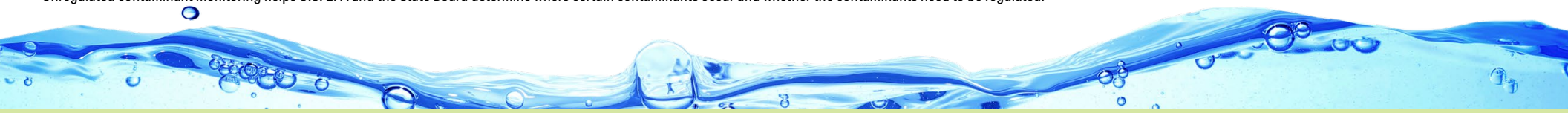
UNREGULATED SUBSTANCES [3]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	San Fernando: AMOUNT DETECTED	San Fernando: RANGE LOW-HIGH	Metropolitan Water District of Southern California: AMOUNT DETECTED	Metropolitan Water District of Southern California: RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2022	NA	NA	140	NA	Runoff/Leaching from natural deposits; industrial wastes
Bromodichloromethane (ppb)	2022	4.3	0.84–11	NA	NA	By-product of drinking water chlorination
Bromoform (ppb)	2022	4.36	0.81–11	NA	NA	By-product of drinking water chlorination
Chloroform (ppb)	2022	3	ND–9.7	NA	NA	By-product of drinking water disinfection
Chromium VI [hexavalent chromium] (ppb)	2021	3.5	3.2–4	NA	NA	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Dibromochloromethane (ppb)	2022	3.9	ND–9.2	NA	NA	By-product of drinking water chlorination
Hardness, Total [as CaCO3] (ppm)	2021	237	200–260	NA	NA	Erosion; leaching of natural deposits
Sodium (ppm)	2022	NA	NA	100	98–103	Salt present in the water

OTHER UNREGULATED SUBSTANCES[3]

		San Fernando		Metropolitan Water District of Southern California		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Aggressiveness Index (units)	2022	NA	NA	12.5	NA	NA
Alkalinity, Total [as CaCO3] (ppm)	2022	NA	NA	127	126–128	Runoff/leaching of natural deposits: carbonate, bicarbonate, hydroxide, and occasionally borate, silicate, and phosphate
Bicarbonate [as HCO3] (ppm)	2021	223	200–240	NA	NA	Naturally occurring
Bromide (ppb)	2019	98	94–100	NA	NA	NA
Bromochloroacetic Acid (ppb)	2022	0.96	ND–1.9	NA	NA	By-product of drinking water chlorination
Calcium [Ca] (ppm)	2022	NA	NA	70	68–71	Runoff/leaching from natural deposits
Carbon Dioxide (ppm)	2021	5.8	5.2–6.2	NA	NA	Naturally occurring
Carbonate [as CO3] (ppm)	2018	0.8	ND–2.5	NA	NA	Naturally occurring
Chlorate (ppb)	2022	NA	NA	88	NA	By-product of drinking water chlorination; industrial processes
Chloride (ppm)	2021	25.7	23–28	NA	NA	Runoff/leaching from natural deposits; seawater influence
Chlorodifluoromethane [HCFC-22] (ppb)	2015	380	360–400	NA	NA	NA
Dibromoacetic Acid (ppb)	2022	0.48	ND–2.5	NA	NA	By-product of drinking water chlorination
Dichloroacetic Acid (ppb)	2022	0.53	ND–2.2	NA	NA	By-product of drinking water chlorination
Hardness, Total [as CaCO3] (ppm)	2022	NA	NA	279	277–281	Runoff/leaching from natural deposits; sum of polyvalent cations, generally magnesium and calcium
Iron [Fe] (ppm)	2021	0.012	ND–0.013	NA	NA	Leaching from natural deposits; industrial wastes
Langelier Index [at 60 degrees C] (units)	2021	0.94	0.8–1	NA	NA	NA
Magnesium [Mg] (ppm)	2022	NA	NA	26	25–26	Runoff/leaching from natural deposits
Manganese (ppm)	2021	6.7	ND–20	NA	NA	Leaching from natural deposits
Molybdenum (ppb)	2015	4	4–4	NA	NA	NA
Nitrate + Nitrite [as nitrogen] (ppm)	2022	8.5	6.1–9.5	NA	NA	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
pH (units)	2022	NA	NA	8.1	NA	NA
Potassium [K] (ppm)	2022	NA	NA	4.6	4.5–4.8	Salt present in the water
Specific Conductance [EC] (µmho/cm)	2021	570	510–610	NA	NA	Substances that form ions when in water; seawater influence
Strontium (ppb)	2015	517	500–530	NA	NA	NA
Sulfate [SO4] (ppm)	2021	53	47–62	NA	NA	Runoff/leaching from natural deposits; industrial wastes
Total Organic Carbon [TOC] (ppb)	2019	0.44	ND–0.44	NA	NA	NA
Vanadium (ppb)	2015	7	7–8	NA	NA	Naturally occurring; industrial waste discharge

[1] The State Board considers 50 pCi/L to be the level of concern for beta particles.
[2] There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.
[3] Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.



Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

Source Water Assessment

In August 2002 the California Department of Public Health, Drinking Water Field Operations Branch, Central District, conducted a drinking water source assessment for the City of San Fernando Water Division. The purpose of the assessment was to determine the vulnerability of our water sources to possible contaminating activities. The results are presented in the table below.

SOURCE	VULNERABILITY ASSOCIATED WITH DETECTED CONTAMINANTS	VULNERABILITY NOT ASSOCIATED WITH ANY DETECTED CONTAMINANTS
Well 2A	Housing-high density; Parks; Septic systems-high density; Apartments and condominiums	Sewer collection systems
Well 3	Housing-high density; Parks; Septic systems-high density; apartments and condominiums	Sewer collection systems, Automobile gas stations, Dry cleaners
Well 4A	Sewer collection systems; Dry cleaners	None
Well 7A	Housing-high density; Septic systems-high density; Apartments and condominiums	Automobile gas stations

For a copy of the report please go to pwdispatch@sfcity.org
For a copy of the MWD report please go to www.mwdh2o.com